

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph bridging pages 25 and 26 as follows:

This embodiment relates to a separator for a fuel cell comprising fuel channels in one surface and cooling water channels in the other surface. ~~FIG. 1 shows~~ FIGs. 1A-1B show a configuration of a substrate 103 in a separator for a fuel cell according to this embodiment. The substrate 103 is H-shaped where the width direction is vertical, i.e., both ends in the longitudinal direction of the rectangle protrude to the width direction. In one surface of the substrate 103, fuel channels are formed as shown in FIG. 1A, while in the other surface, cooling water channels are formed as shown in FIG. 1B. These surfaces will be individually described in detail.

Please amend the paragraph bridging pages 26 and 27 as follows:

As shown in ~~FIG. 1~~ FIGs. 1A-1B, the second fuel-feeding manifold 115 and the second cooling-water-feeding manifold 119 are substantially rectangular, and in the substrate 103, the first manifolds for feeding and discharging a fuel and water are provided on the outside of the shorter edges of the second fuel-feeding manifold 115 and the second cooling-water-feeding manifold 119. On the outside of the longer edges, first manifolds for feeding and discharging air are formed as described later in Embodiment 3. The second fuel-feeding manifold 115, the second cooling-water-feeding manifold 119 and the second cooling-water-discharging manifold 121 comprise a protrusion 123.

On page 29, please amend the paragraph beginning at line 2 as follows:

A nozzle 141 is provided between the second fuel-feeding manifold 115 and the fuel channels 105. The nozzle 141 generates resistance in the inlet area of the fuel channels 105. ~~FIG. 10 shows~~ FIGs. 10A-10B show a configuration of the nozzle 141. FIGs. 10A and 10B are a

plan view and a front view, respectively. The nozzle 141 has a thin plate base 310. In one end of the base 310, protruded pieces 312 are formed in parallel like comb teeth in at a certain interval. In the other end of the base 310, nozzle apertures 314 penetrating individual protruded pieces 312 are formed.

Please amend the paragraph bridging pages 31 and 32 as follows:

The configuration will be described with reference to FIG. 9 in terms of the fuel discharge side. FIG. 9 illustrates a configuration of the separator for a fuel cell in FIG. 1. FIG. 9 shows a cross section of the substrate in the direction from the fuel channel 105 to the second fuel-discharging manifold 117. As shown in FIG. 9, since the SUS plate 145 is to be placed in the second fuel-discharging manifold 117, a step is formed in the channel such that a depth from the ~~bottom~~ undersurface 145a of the SUS plate 145 to the bottom face 117a of the second fuel-discharging manifold 117 is equal to a depth ("a") of the fuel channels 105. Thus, the depth of the fuel channels in the second fuel-discharging manifold 117 can be substantially equal to the depth of the fuel channels 105, resulting in smooth feeding of the fuel gas. Such a configuration may be also employed in the fuel feeding side.

On page 34, please amend the paragraph beginning at line 1 as follows:

There will be described a process for preparing the substrate 103. ~~FIG. 11 illustrates~~
FIGs. 11A-11B illustrate a process for manufacturing a separator for a fuel cell.

On page 35, please amend the paragraph beginning at line 9 as follows:

This embodiment relates to a separator for a fuel cell comprising air channels in one side. ~~FIG. 3 shows~~ FIGs. 3A-3B show a configuration of a substrate 149 in a separator for a fuel cell according to this embodiment. The substrate 149 has the same shape as the substrate 103 in Embodiment 1. Therefore, the following description will be mainly related to elements different from those in the substrate 103. In one side of the substrate 149, air channels are formed as shown in FIG. 3B, while the other side is flat as shown in FIG. 3A.

Please amend the paragraph bridging pages 38 and 39 as follows:

The configuration of the cell stack 215 will be described with reference to ~~FIG. 6~~ FIGs. 6A-6B. FIG. 6A is a perspective view showing a configuration of the cell stack 215 in FIG. 7 while FIG. 6B shows a rear face of each plate in FIG. 6A. ~~FIG. 6 shows~~ FIGs. 6A-6B show a two-cell structure as an example of stacking. A fuel-electrode side separator 101 and a separator 147 are placed in the fuel and the air electrode sides of a cell 50, respectively, to give an assembly set. The given number of the assembly sets are stacked. At the ends of the cell stack 215, an insulator 201 and an end plate 213 (not shown in ~~FIG. 6~~ FIGs. 6A-6B) are sequentially placed outwardly. The fuel-electrode side separator adjacent to the insulator 201 may be a fuel-electrode side separator 171 without a cooling water channel in place of a fuel-electrode side separator 101.

On page 39, please amend the paragraph beginning at line 8 as follows:

FIGs. 5A-5B show ~~FIG. 5 shows~~ a configuration of the insulator 201 and the end plate 213. As shown in FIG. 5A, the insulator 201 comprises a substrate 203 on which are formed a

first fuel-feeding manifold 107, a first fuel-discharging manifold 109, a first cooling-water-feeding manifold 111, a first cooling-water-discharging manifold 113 and a protrusion 163. In one side, a sealer (not shown) and a bead 205 are provided. There is formed a collector plate 207 protruding from the longitudinal edge of the substrate 203 for collecting electric power.

Please amend the paragraph bridging pages 47 and 48 as follows:

The configuration of the cell stack 215 will be described with reference to ~~FIG. 14~~ FIGs. 14A-14B. ~~FIG. 14 illustrates~~ FIGs. 14A-14B illustrate a two-cell structure as an example of stacking. A fuel-electrode side separator 101 and a separator 147 are placed in the fuel and the air electrode sides of a cell 50, respectively, to give an assembly set. The given number of the assembly sets are stacked to give a stack. At the ends of the stack, an insulator 201 and an end plate 213 (not shown in FIG. 14) are sequentially placed outwardly. The fuel-electrode side separator adjacent to the insulator 201 may be a fuel-electrode side separator 171 without a cooling water channel in place of a fuel-electrode side separator 101.

On page 48, please amend the paragraph beginning at line 16 as follows:

The configurations of the fuel-electrode side separator 101 and the air-electrode side separator 147 will be described with reference to FIGs. ~~15~~ 15A to ~~18~~ 18B.

Please amend the paragraph bridging pages 49 and 50 as follows:

~~FIG. 15 shows~~ FIGs. 15A-15B show a configuration of a substrate 103 in the separator for a fuel cell according to this embodiment. The substrate 103 is H-shaped where the width direction is vertical, i.e., both ends in the longitudinal direction of the rectangle protrude to the

width direction. In one surface of the substrate 103, fuel channels are formed as shown in FIG. 15A, while in the other surface, cooling water channels are formed as shown in FIG. 15B. These surfaces will be individually described in detail.

Please amend the paragraph bridging pages 50 and 51 as follows:

As shown in ~~FIG. 15~~ FIGs. 15A-15B, the second fuel-feeding manifold 115 and the second cooling-water-feeding manifold 119 are substantially rectangular, and three edges other than the edge communicated with the channel are used for feeding a fuel gas, cooling water and air, respectively, as described later. A flow direction of a fuel gas or cooling water in the first manifold is perpendicular to that of the fuel gas or cooling water in the second manifold. Furthermore, a flow direction of a fuel gas or cooling water in the second manifold is also perpendicular to that in the fuel channels 105 or the cooling water channels 106. By providing the second manifold between the first manifold and the channels and setting the flow direction of the fuel gas or cooling water in such a manner, the fuel and cooling water can be efficiently fed in a limited space.

On page 54, please amend the paragraph beginning at line 2 as follows:

Next, a separator for a fuel cell comprising air channels in one side will be described. FIGs. 17A-17B show ~~FIG. 17 shows~~ a configuration of a substrate 149 in a separator for a fuel cell according to this embodiment. The substrate 149 has the same shape as the substrate 103 described in this embodiment. Therefore, the following description will be mainly related to elements different from those in the substrate 103. In one side of the substrate 149, air channels are formed as shown in FIG. 17B, while the other side is flat as shown in FIG. 17A.

On page 54, please amend the paragraph beginning at line 12 as follows:

There will be described a process for preparing the substrate 103. FIGs. 23A-23B
illustrate ~~FIG. 23 illustrates~~ a process for manufacturing a separator for a fuel cell.